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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/501,104

12/17/2004

Alessandro Vescovini

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7590
Greenberg Traurig
Suite 400E
2450 Colorado Avenue
Santa Monica, CA 90404

06/26/2007

EXAMINER

CRANE, DANIEL C

ART UNIT

PAPER NUMBER

3725

MAIL DATE

DELIVERY MODE

06/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/501,104

Applicant(s)

VESCOVINI, ALESSANDRO

Examiner

Daniel C. Crane

Art Unit

3725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

REJECTION OF CLAIMS ON FORMAL MATTERS

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With reference to claims 1, 2, 16 and 28, the phrase "straightening the full metal material cutting of the metal material into pieces of a determined length" is awkward. Inserting "and" before "cutting" in the phrase would overcome the indefiniteness. Regarding the preambles of claims 2 and 28 and the body of claim 10, the phrase "such as" or "for example" renders the claim indefinite because it is unclear whether the limitation following the phrase is part of the claimed invention. See MPEP § 2173.05(d). With reference to claim 25, failure to provide antecedence for "drilling" renders the subject matter indefinite. As to claim 27, failure to provide antecedence for the "transfer unit" renders the subject matter indefinite.

REJECTION OF CLAIMS OVER PRIOR ART

Claims 2, 6, 7, 9, 19, 20, 23, 24 and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pontini (4,449,390) in view of Kohana (4,882,924) or Berecz (4,272,978). Pontini illustrates the basic claimed procedure and plant where metal material is prepared and transferred between presses 5 and 6 with the transfer being accomplished by manipulator robots 13, 17, 23 and 26. It is clearly evident that the size of the presses is such that hydraulic drives would have been envisioned by Pontini so as to produce the large pressing forces needed to properly forge the workpieces. However, it is also noted that it is common in

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the forging art to use hydraulic presses to press workpieces and in light of this knowledge by the skilled artisan having a level of skill within this art, it would have been obvious to the skilled artisan to have utilized hydraulic presses for the above noted reasoning. The art of straightening and cutting material from stock is also known by the skilled artisan as evidenced by either one of the secondary teachings. Therefore, it would have been obvious to the skilled artisan at the time of the invention to have modified Pontini's method and apparatus by further straightening the material supplied from a stock quantity and severing the stock into pieces for placement within the presses using the concepts taught by either Kohana or Berecz. Since Pontini's operation deals with the forging of pitmans as clearly shown in Figure 2, it is evident that shearing implements are used to form the bearing holes within the pitman A₂, A₃.

Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pontini (4,449,390) and either one of Kohana (4,882,924) or Berecz, as applied to the claims above, and further in view of Green (5,632,175). It is common in the metal working art to produce products from precut elongated material. This is conventionally shown by Green where the bar 22 is individually fed into the straightening mechanism from bundled stock. It would have been obvious to the skilled artisan at the time of the invention to have modified Pontini's procedure by using pre-cut straightened material using the concepts taught by Green so as to eliminate coils of stock. Precutting the predetermined lengths by blades or saws are well known in the art and clearly common modes of severing stock.

Claims 1-3, 6, 11, 13-20, 23 and 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vergnani (4,175,417) in view of Ohara (6,775,908). Vergnani illustrates and discloses the claimed cold pressing procedure where continuous length of stock is cut into pieces and the pieces are sequentially fed through a plurality of “hydraulic presses” 80-88 and 90-98, where the presses are driven by hydraulic drives 46 or 146. The pieces are formed with dead holes, as shown in the 3rd Station, Figure 9, with a piercing step shown in the 5th station. Tapping can be performed by the tapping head 66 (see Figure 2), thus, resulting in a drilling of the piece. While Vergnani does not show that the continuous length of stock is “straightened”, this is clearly an inherent processing operation in preparation for the piece cutting. However, this is also known in the art as evidenced by Ohara where stock is straightened prior to cutting into pieces (see Figure 4). Therefore, it would have been obvious to the skilled artisan at the time of the invention to have modified Vergnani’s procedure by initially straightening the stock prior to the cutting operation as taught by Ohara so as to properly prepare the stock for the hydraulic pressing operations. As to the “manipulator robot”, this provision is also shown by Ohara in Figure 22 where a “manipulator robot” 56 can pick and place the workpiece at each station. Such a mechanism eliminates the need to move the dies relative to the punches and facilitates movement of the workpiece from the dies and punches. Accordingly, it would have been obvious to the skilled artisan at the time of the invention to have modified Vergnani’s rotatable table 60 by using a manipulator robot so as to dispense with the rotatable table as taught by Ohara. The size of the work or pieces being processed, i.e., “diameter greater than 30mm”, would not effect the overall procedure other than sizing the equipment to handle specific sized pieces. Clearly, this is in the purview of the skilled artisan and the skilled artisan would

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have realized the need to configure or size the processing equipment to adequately accommodate the specific desired pieces. As to claim 6, see Figure 22 of Ohara where the shear 52 performs the cutting operation. Whether the press is vertical or horizontal is considered to be dependent upon the manufacturing plant's layout. Computer controls are commonly used in this art so as to limit and reduce manual intervention in the procedure.

Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vergnani (4,175,417) and Ohara (6,775,908), as applied to the claims above, and further in view of Wang (6,571,452). Washing of the stock is common in the art as taught by Wang so that high quality products are produced during the processing procedure. It would have been obvious to the skilled artisan at the time of the invention to have modified Vergnani's process by further washing the stock as taught by Wang for the above noted motivation.

Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vergnani (4,175,417) and Ohara (6,775,908), as applied to the claims above, and further in view of Green (5,632,175). It is common in the metal working art to produce products from precut elongated material. This is conventionally shown by Green where the bar 22 is individually fed into the straightening mechanism from bundled stock. It would have been obvious to the skilled artisan at the time of the invention to have modified Vergnani's procedure by using pre-cut straightened material using the concepts taught by Green so as to eliminate coils of stock. Precutting the predetermined lengths by blades or saws are well known in the art and clearly common modes of severing stock.

Claims 12 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vergnani (4,175,417) and Ohara (6,775,908) as applied to the claims above, and further in view of Oakley (1,713,316). While Vergnani uses a bolster or indexing plate 60 to transfer the pieces from station to station, it is known in the art to use carriers such as taught by Oakley at 27 to facilitate workstation transfer. Accordingly, it would have been obvious to the skilled artisan at the time of the invention to have modified Vergnani's procedure by using a gripper assembly as clearly taught by Oakley at 27 so as to pick and place the pieces at different stations thus simplifying the procedure.

INDICATION OF ALLOWABLE SUBJECT MATTER

Claims 4, 5, 21 and 22 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

COMMENTS RELATING TO APPLICANT'S FOREIGN PRIORITY FILING

Applicant cannot rely upon the foreign priority papers to overcome the above rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

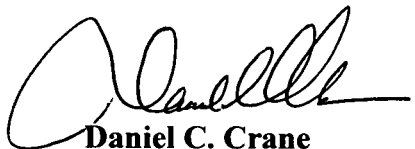
INQUIRIES

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner D. Crane whose telephone number is **(571) 272-4516**. The examiner's office hours are 7:00AM-3:30PM, Monday through Friday.

Documents related to the instant application may be submitted by facsimile transmission at all times to Fax number **(571) 273-8300**. Applicant(s) is(are) reminded to clearly mark any transmission as "DRAFT" if it is not to be considered as an official response. The Examiner's Fax number is **(571) 273-4516**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DCCrane
June 20, 2007



Daniel C. Crane
Primary Patent Examiner
Group Art Unit 3725